

## Claims

1. Method for determining an error rate in a data transfer to a mobile-telephone device (8), comprising the following procedural stages:
  - transmission of transmission blocks (14.0,..., 14.11, 15.0,..., 15.11, 16.0,..., 16.11) to the mobile-telephone device under test (8),
  - reception and evaluation of the transmission blocks by the mobile-telephone device under test (8),
  - transmission of a first and/or a second marking ("ack", "nack") by the mobile-telephone device under test (8) for a correctly-evaluated transmission block or respectively an incorrectly-evaluated transmission block,
  - determination of the number of transmission blocks, which were transmitted to the mobile-telephone device under test (8), and which were incorrectly evaluated by the mobile-telephone device under test (8),
  - determination of an error rate from the number of incorrectly-evaluated transmission blocks, wherein the number of transmission blocks ( $B_{00}$ ,  $B_{30}$ ,  $B_{60}$ ,  $B_{90}$ ;  $B_{01}$ ,  $B_{11}$ ,  $B_{51}$ ,  $B_{101}$ ;  $B_{02}$ ,  $B_{52}$ ,  $B_{102}$ ;  $B_{13}$ ;  $B_{33}$ ,  $B_{53}$ ,  $B_{73}$ ,  $B_{93}$ ) of multiblocks (20, 21, 22, 23), which address the mobile-telephone device under test (8), is specified in a variable manner between one transmission block per multiblock (20, 21, 22, 23) and all of the transmission blocks of the multiblock (20, 21, 22, 23), wherein a multiblock (20, 21, 22, 23) contains a fixed number of

transmission blocks ( $B_{0,0}$ , ...,  $B_{11,0}$ ,  $B_{0,1}$ , ...,  $B_{11,1}$ , etc.).

2. Method according to claim 1,  
5 **characterised in that**  
one or more transmission blocks of several  
transmission channels (14, 15, 16) respectively are  
transmitted to the mobile-telephone device under  
test (8).
- 10 3. Method according to claim 2,  
**characterised in that**  
the number and/or the arrangement of the  
transmission blocks ( $B_{0,0}$ ,  $B_{3,0}$ ,  $B_{6,0}$ ,  $B_{9,0}$ ;  $B_{0,1}$ ,  $B_{1,1}$ ,  
15  $B_{5,1}$ ,  $B_{10,1}$ ;  $B_{0,2}$ ,  $B_{5,2}$ ,  $B_{10,2}$ ;  $B_{1,3}$ ,  $B_{3,3}$ ,  $B_{5,3}$ ,  $B_{7,3}$ ,  $B_{9,3}$ ) of  
a multiblock (20, 21, 22, 23), which are  
transmitted to the mobile-telephone device under  
test (8), is specified for each of the transmission  
channels.
- 20 4. Method according to claim 2 or 3,  
**characterised in that**  
at least one transmission block ( $B_{0,0}$ , ...,  $B_{11,0}$ ;  $B_{0,1}$ , ...,  
 $B_{11,1}$ ;  $B_{0,2}$ , ...,  $B_{11,2}$ ; ...) of a multiblock (20, 21, 22,  
25 23) is transmitted to the mobile-telephone device  
under test (8) for each transmission channel (14,  
15, 16) used by the mobile-telephone device under  
test (8).
- 30 5. Method according to any one of claims 1 to 4,  
**characterised in that**  
the number of transmission blocks transmitted to  
the mobile-telephone device under test (8) is

constant for multiblocks of the same transmission channel (14, 15, 16) disposed in time succession.

- 5 6. Method according to any one of claims 1 to 4,  
**characterised in that**  
the number of transmission blocks transmitted to the mobile-telephone device under test (8) is varied for multiblocks of the same transmission channel disposed in time succession relative to one  
10 another.
- 15 7. Method according to any one of claims 1 to 6,  
**characterised in that**  
the transmission blocks (B0<sub>0</sub>, B3<sub>0</sub>, B6<sub>0</sub>, B9<sub>0</sub>; B0<sub>2</sub>, B5<sub>2</sub>, B10<sub>2</sub>) transmitted to the mobile-telephone device under test (8) are arranged approximately uniformly within a multiblock (20, 22).
- 20 8. Method according to any one of claims 1 to 6,  
**characterised in that**  
the transmission blocks (B0<sub>1</sub>, B1<sub>1</sub>, B5<sub>1</sub>, B10<sub>1</sub>) transmitted to the mobile-telephone device under test (8) are arranged randomly within a multiblock  
25 (21).
- 30 9. Tester for determining an error rate in a data transmission to a mobile-telephone device, comprising  
a transmitter device (26.1) for the transmission of transmission blocks,  
a receiver device (26.2) for the reception of the first and/or second markings ("ack", "nack")  
transmitted by the mobile-telephone device under test (8),

an evaluation device (27) for determining the number of transmission blocks incorrectly evaluated by the mobile-telephone device under test (8) from the first and/or second markings ("ack", "nack") received and for determining an error rate from the number of incorrectly-evaluated transmission blocks, and

a selection device (28) for specifying in a variable manner the number of transmission blocks ( $B_{0,0}, \dots, B_{11,0}$ ;  $B_{0,1}, \dots, B_{11,1}$ ;  $B_{0,2}, \dots, B_{11,2}$ ;  $B_{0,3}, \dots, B_{11,3}$ ) of a multiblock (20, 21, 22, 23), which address the mobile-telephone device under test (8), between one transmission block per multiblock (20, 21, 22, 23) and all of the transmission blocks ( $B_{0,0}, \dots, B_{11,0}$ ;  $B_{0,1}, \dots, B_{11,1}$ ;  $B_{0,2}, \dots, B_{11,2}$ ;  $B_{0,3}, \dots, B_{11,3}$ ) per multiblock (20, 21, 22, 23), wherein a multiblock (20, 21, 22, 23) consists of a fixed number of transmission blocks ( $B_{0,0}, \dots, B_{11,0}$ ;  $B_{0,1}, \dots, B_{11,1}$ ;  $B_{0,2}, \dots, B_{11,2}$ ;  $B_{0,3}, \dots, B_{11,3}$ ).

10. Tester according to claim 9,

**characterised in that**

the selection device (28) comprises means (28.1), which address one or more transmission blocks (14.0, ... 14.11; 15.0, ... 15.11; 16.0, ... 16.11) of several transmission channels (14, 15, 16) to the mobile-telephone device under test (8).

11. Tester according to claim 10,

**characterised in that**

the selection device (28) comprises means (28.1) for specifying, separately for each of the several transmission channels (14, 15, 16), the number and/or the arrangement of the transmission blocks

(14.0,..., 14.11; 15.0,..., 15.11; 16.0,..., 16.11),  
which address the mobile-telephone device under  
test (8).

- 5 12. Tester according to any one of claims 9 to 11,  
**characterised in that**  
the number of transmission blocks, which address  
the mobile-telephone device under test (8), can be  
varied by the selection device (28) for multiblocks  
10 disposed in time succession relative to one  
another.
13. Tester according to any one of claims 9 to 12,  
**characterised in that**  
15 the selection device (28) comprises means (28.1)  
for the uniform arrangement of the transmission  
blocks ( $B_{00}$ ,  $B_{30}$ ,  $B_{60}$ ,  $B_{90}$ ;  $B_{02}$ ,  $B_{52}$ ,  $B_{102}$ ) of a  
multiblock, which address the mobile-telephone  
device.
- 20 14. Tester according to any one of claims 9 to 12,  
**characterised in that**  
the selection device (28) comprises means (28.1)  
for the random arrangement of the transmission  
25 blocks ( $B_{01}$ ,  $B_{11}$ ,  $B_{51}$ ,  $B_{101}$ ) of a multiblock (21),  
which address the mobile-telephone device (8).